

RESERVOIR SEDIMENTATION
DATA SUMMARY

Philpott

6-12

NAME OF RESERVOIR

DATA SHEET NO.

DAM	1. OWNER Dept. of Army, Corps of Engrs		2. RIVER Smith		3. STATE Virginia			
	4. SEC. - TWP. - RANGE -		5. NEAREST TOWN Bassett, Va.		6. COUNTY Henry-Franklin			
	7. STREAM BED ELEV. 805		8. TOP OF DAM ELEV. 1016		9. SPILLWAY CREST ELEV. 985			
RESERVOIR	10. STORAGE ALLOCATION	11. ELEVATION TOP OF POOL	12. SURFACE AREA ACRES	13. STORAGE ACRE-FEET	14. ACCUMULATED ACRE-FEET	15. DATE STORAGE BEGAN		
	a. FLOOD CONTROL	985	3,370	34,100	201,500	10 Dec 51		
	b. POWER	974	2,880	111,100	167,400			
	c. WATER SUPPLY							
	d. IRRIGATION					16. DATE NORMAL OPER. BEGAN		
	e. CONSERVATION							
	f. INACTIVE	920	1,350	56,300	56,300	7 Sep 53		
WATERSHED	17. LENGTH OF RESERVOIR 16		MILES		AV. WIDTH OF RESERVOIR 0.31		MILES	
	18. TOTAL DRAINAGE AREA 212		SQ. MI.		22. MEAN ANNUAL PRECIPITATION 50.54 (30)		INCHES	
	19. NET SEDIMENT CONTRIBUTING AREA 185.7		SQ. MI.		23. MEAN ANNUAL RUNOFF 18.5 (31)		INCHES	
	20. LENGTH 39	MILES	AV. WIDTH 5.4	MILES	24. MEAN ANNUAL RUNOFF 208,648 (31)		AC.-FT.	
	21. MAX. ELEV. 3600	MIN. ELEV. 805	25. CLIMATIC CLASSIFICATION Humid					
SURVEY DATA	26. DATE OF SURVEY	27. PERIOD YEARS	28. ACCL. YEARS	29. TYPE OF SURVEY	30. NO. OF RANGES OR CONTOUR INT.	31. SURFACE AREA ACRES	32. CAPACITY ACRE-FEET	33. C/W RATIO AC.-FT. PER SQ. ML.
	10 Dec 51	0	0	Range (D)	30	3370	201,500	950
	6 Nov 60	8.9	8.9	Range (D)	30	-	198,000	934
	26. DATE OF SURVEY	34. PERIOD ANNUAL PRECIPITATION	35. PERIOD WATER INFLOW ACRE-FEET			36. WATER INFL. TO DATE AC.-FT.		
			a. MEAN ANNUAL	b. MAX. ANNUAL	c. PERIOD TOTAL	a. MEAN ANNUAL	b. TOTAL TO DATE	
	6 Nov 60	50.48	192,400	249,600	1,712,000	192,400	1,712,000	
	26. DATE OF SURVEY	37. PERIOD SEDIMENT DEPOSITS ACRE-FEET			38. TOTAL SED. DEPOSITS TO DATE ACRE-FEET			
		a. PERIOD TOTAL	b. AV. ANNUAL	c. PER SQ. ML.-YR.	a. TOTAL TO DATE	b. AV. ANNUAL	c. PER SQ. ML.-YR.	
	6 Nov 60	3440	387	2.08	3440	387	2.08	
	26. DATE OF SURVEY	39. AV. DRY WGT. LBS. PER CU. FT.	40. SED. DEP. TONS PER SQ. ML.-YR.		41. STORAGE LOSS PCT.		42. SED. INFLOW PPM	
a. PERIOD			b. TOTAL TO DATE	a. AV. ANNUAL	b. TO DATE	a. PERIOD	b. TO DATE	
6 Nov 60	46.2 (10)	2103	2103	0.19	1.71	1488	1488	

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET ABOVE, AND BELOW, CREST ELEVATION											
	1000	Crest	980-	960-	940-	920-	900-	880-	860-	840-	820-	
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION											
6 Nov 60	0	0	4	10	18	18	15	15	8	5	7	

26. DATE OF SURVEY	44. REACH DESIGNATION PERCENT OF TOTAL ORIGINAL LENGTH OF RESERVOIR														
	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	-105	-110	-115	-120	-125
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN REACH DESIGNATION														
6 Nov 60	20	25	18	9	9	4	6	5	3	1					

45. RANGE IN RESERVOIR OPERATION							
WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW AC.-FT.	WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW AC.-FT.
1952(10 mo)	914.8	819.2	209,000				
1953	973.3	908.2	195,800				
1954	967.8	954.7	123,200				
1955	965.6	950.4	167,600				
1956	961.8	927.6	93,800				
1957	974.7	929.9	209,600				
1958	975.2	970.3	292,000				
1959	975.9	965.2	157,800				
1960	976.4	970.5	254,100				
1961(1 mo)	970.7	968.7	8,900				

46. ELEVATION-AREA-CAPACITY DATA								
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY
805		0	980		181,860			
820		75	985		198,060			
840		1,709	1,000		254,560			
860	1/	6,516		1/				
880		16,020						
900		31,497						
920		53,966						
940		85,035						
960		127,088						
974		163,980						

47. REMARKS AND REFERENCES

1/ Not determined.

Abnormally low flows occurred during water years 1954, 1955, and 1956. Flow for this period about 45% of normal flow.